

**OGorek, Megan (DEQ)**

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**From:** OGorek, Megan (DEQ)  
**Sent:** Tuesday, March 08, 2016 9:00 AM  
**To:** 'Timothy Castillo'  
**Subject:** Application Complete- VPDES Permit No. VA0086584, Glenmore WRRF, Albemarle Co.

Dear Mr. Castillo:

Your application has been reviewed and appears to be complete. The next steps involve assembling the information necessary to develop the permit limitations and then drafting the permit. Once the draft permit is prepared and the appropriate reviews are performed, I will transmit the draft permit and supporting documentation to you for review. I expect to have this draft permit package to you within the next few months.

The Department of Environmental Quality strives to complete the permitting process in a timely manner. If you have any questions about our procedures or the status of your draft permit, please do not hesitate to contact us.

Megan K. O'Gorek  
Water Permit Writer  
DEQ - Valley Regional Office  
4411 Early Road, Harrisonburg, VA  
Ph: 540-574-7845 Fax: (540)574-7878  
[megan.ogorek@deg.virginia.gov](mailto:megan.ogorek@deg.virginia.gov)  
[Web: www.deg.virginia.gov](http://www.deg.virginia.gov)  
Mail: P.O. Box 3000, Harrisonburg, VA 22801

**MEMORANDUM**

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

**VALLEY REGIONAL OFFICE**

4411 Early Road - P.O. Box 3000

Harrisonburg, VA 22801

SUBJECT: Application Errata for VPDES Permit No. VA0086584, Glenmore WRRF, Albemarle County

TO: PP File

FROM: Megan O'Gorek

DATE: March 1, 2016

The following deficiencies were noted in the subject permit reissuance application:

Form 2A

Item A.2. Item was left blank. It is known that the Applicant name is Rivanna Water & Sewer Authority. It is also known that Rivanna Water & Sewer Authority is also the owner of the treatment works.

Item A.4. Type of Collection System should be separate and Ownership should be municipal.

Item.A.5.b. Box was not checked. Should be checked "no" that the treatment works discharge to a receiving water that is either in Indian Country or that is upstream (and eventually flows through) Indian Country.

Item A.11.a Primary and Advanced treatment should have been checked in addition to Secondary.

The deficiencies noted are insignificant and will not affect the preparation of a legally and technically defensible draft permit.

Reviewer Concurrence: DMJ

3/4/16



695 MOORES CREEK LANE  
CHARLOTTESVILLE, VA 22902-9016  
TEL: 434.977.2970  
FAX: 434.293.8858  
WWW.RIVANNA.ORG

January 27, 2016

Ms. Megan K. O'Gorek  
Water Permit Writer  
DEQ Valley Regional Office  
PO Box 3000  
Harrisonburg, VA 22801

DEQ VALLEY

JAN 29 2016

To: \_\_\_\_\_  
Date: \_\_\_\_\_

RE: Glenmore WRRF VA0086584  
VPDES Permit Reissuance Application

Dear Ms. O'Gorek:

Enclosed, please find the completed Permit Reissuance Application package for the Glenmore Water Resource Recovery Facility VA0086584. This package includes:

1. EPA Form 3510-2A (Application Form 2A) with mapping, flow diagram and contact laboratory results
2. VPDES Sewage Sludge Permit Application Form with sludge acceptance letter
3. VPDES Application Addendum
4. Permit Billing Information Form
5. Public Notice Billing Information Form
6. Stormwater No Exposure Certification Form

Please do not hesitate to contact me should you need any further information.

Sincerely,

Timothy E. Castillo  
Wastewater Manager

**VPDES/VPA Permit Billing Information Form  
for Annual Maintenance Fee**

**Facility Name:** Glenmore WRRF

**Permit Number:** VA 0086584

**Owner Name:** Rivanna Water and Sewer Authority

**Owner Address:** 695 Moores Creek Lane  
Charlottesville, VA 22902

**Billing Contact Name:** Timothy E. Castillo

**Title:** Wastewater Manager

**Phone Number:** 434-977-2970 ext.112

**E-Mail Address:** tcastillo@rivanna.org

PUBLIC NOTICE BILLING INFORMATION

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in The Daily Progress in accordance with 9 VAC 25-31-290.C.2.

Agent/Department to be billed: Wastewater Department

Owner: Rivanna Water and Sewer Authority

Agent/Department Address: 695 Moores Creek Lane

Charlottesville, VA 22902

Agent's Telephone No.: 434-977-2970 ext. 112

Printed Name: Timothy E. Castillo

Authorizing Agent – Signature: 

Date: 1/27/16

Facility Name: Glenmore WRRF

VPDES Permit No. VA VA0086584

## **VPDES Permit Application Addendum**

1. **Entity to whom the permit is to be issued:** Rivanna Water and Sewer Authority  
*Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.*
2. **Is this facility located within city or town boundaries?** ☐ YES ☒ NO  
Include a topographic map identifying the location of the facility, the property boundaries, and the discharge point.
3. **What is the tax map parcel number for the land where this facility is located?** 093A500000000B0
4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** 0
5. **ALL FACILITIES: What is the design average flow of this facility?** 0.381 MGD \_\_\_\_\_ MGD  
Industrial facilities: **What is the maximum 30-day avg. production level (include units)?** \_\_\_\_\_

**In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels?** ☐ YES ☒ NO

**If "Yes", please specify the other flow tiers (in MGD) or production levels:** \_\_\_\_\_

*Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?*

6. **Nature of operations generating wastewater:**

Domestic sewer service

100 % of flow from domestic connections/sources

Number of private residences to be served by the wastewater treatment facilities: ☐ 0 ☐ 1-49 ☒ 50 or more

\_\_\_\_\_ % of flow from non-domestic connections/sources

7. **Mode of discharge:** ☒ Continuous ☐ Intermittent ☐ Seasonal

Describe frequency and duration of intermittent or seasonal discharges:

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**

- ☒ Permanent stream, never dry
- ☐ Intermittent stream, usually flowing, sometimes dry
- ☐ Ephemeral stream, wet-weather flow, often dry
- ☐ Effluent-dependent stream, usually or always dry
- ☐ Lake or pond at or below the discharge point
- ☐ Other: \_\_\_\_\_

9. **Consent to receive electronic mail**

The Department of Environmental Quality (DEQ) may deliver permits, certifications and plan approvals to recipients, including applicants or permittees, by electronically certified mail where the recipients notify DEQ of their consent to receive mail electronically (§ 10.1-1183). Check *only one* of the following to consent to or decline receipt of electronic mail from DEQ as follows:

- ☒ Applicant or permittee agrees to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity, and to certify receipt of such electronic mail when requested by the DEQ.

Please provide email: tcastillo@rivanna.org

- ☐ Applicant or permittee declines to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity.

## FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99  
OMB Number 2040-0086

Glenmore Water Resource Recovery Facility VA0086584

FORM

2A

NPDES

## NPDES FORM 2A APPLICATION OVERVIEW

## APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

## BASIC APPLICATION INFORMATION:

- A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. **Additional Application Information for Applicants with a Design Flow  $\geq$  0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. **Certification.** All applicants must complete Part C (Certification).

## SUPPLEMENTAL APPLICATION INFORMATION:

- D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
  1. Has a design flow rate greater than or equal to 1 mgd,
  2. Is required to have a pretreatment program (or has one in place), or
  3. Is otherwise required by the permitting authority to provide the information.
- E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
  1. Has a design flow rate greater than or equal to 1 mgd,
  2. Is required to have a pretreatment program (or has one in place), or
  3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. **Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
  1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
  2. Any other industrial user that:
    - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
    - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
    - c. Is designated as an SIU by the control authority.
- G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

DEQ VALLEY

JAN 18 2018

To: \_\_\_\_\_  
Date: \_\_\_\_\_

**FACILITY NAME AND PERMIT NUMBER:**

Glenmore Water Resource Recovery Facility VA0086584

Form Approved 1/14/99  
OMB Number 2040-0086**BASIC APPLICATION INFORMATION****PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:**

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

**A.1. Facility Information.**Facility name Glenmore Water Resource Recovery FacilityMailing Address 695 Moores Creek Lane  
Charlottesville, VA 22902Contact person Timothy E. CastilloTitle Wastewater ManagerTelephone number (434) 977-2970Facility Address 3395 Carroll Creek Road  
(not P.O. Box) Charlottesville, VA 22902**A.2. Applicant Information.** If the applicant is different from the above, provide the following:

Applicant name \_\_\_\_\_

Mailing Address \_\_\_\_\_

Contact person \_\_\_\_\_

Title \_\_\_\_\_

Telephone number \_\_\_\_\_

Is the applicant the owner or operator (or both) of the treatment works?

\_\_\_\_\_ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☒ facility \_\_\_\_\_ applicant**A.3. Existing Environmental Permits.** Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).NPDES VA0086584

PSD \_\_\_\_\_

UIC \_\_\_\_\_

Other \_\_\_\_\_

RCRA \_\_\_\_\_

Other \_\_\_\_\_

**A.4. Collection System Information.** Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
<u>Glenmore</u>	<u>1820</u>	<u>Domestic/Gravity</u>	<u>Albermarle County Service</u>
_____	_____	_____	_____
_____	_____	_____	_____

Total population served 1820

## FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99  
OMB Number 2040-0086

Glenmore Water Resource Recovery Facility VA0086584

## A.5. Indian Country.

- a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

- b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☐ No

## A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

- a. Design flow rate
- 0.381
- mgd

	Two Years Ago	Last Year	This Year
b. Annual average daily flow rate	<u>0.120</u>	<u>0.105</u>	<u>0.102</u> mgd
c. Maximum daily flow rate	<u>0.393</u>	<u>0.589</u>	<u>0.380</u> mgd

## A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

☒ Separate sanitary sewer 100 %

☐ Combined storm and sanitary sewer          %

## A.8. Discharges and Other Disposal Methods.

- a. Does the treatment works discharge effluent to waters of the U.S.?
- ☒
- Yes
- ☐
- No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1

ii. Discharges of untreated or partially treated effluent         

iii. Combined sewer overflow points         

iv. Constructed emergency overflows (prior to the headworks)         

v. Other         

- b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each surface impoundment:

Location:         

Annual average daily volume discharged to surface impoundment(s)          mgd

Is discharge          continuous or          intermittent?

- c. Does the treatment works land-apply treated wastewater?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each land application site:

Location:         

Number of acres:         

Annual average daily volume applied to site:          Mgd

Is land application          continuous or          intermittent?

- d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works?
- ☐
- Yes
- ☒
- No

**FACILITY NAME AND PERMIT NUMBER:**Form Approved 1/14/99  
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Glenmore Water Resource Recovery Facility VA0086584

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

Contact person: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone number: \_\_\_\_\_

For each treatment works that receives this discharge, provide the following:

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

Contact person: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone number: \_\_\_\_\_

If known, provide the NPDES permit number of the treatment works that receives this discharge. \_\_\_\_\_

Provide the average daily flow rate from the treatment works into the receiving facility. \_\_\_\_\_

NA mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)?

\_\_\_\_\_ Yes

\_\_\_\_\_ ☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method: \_\_\_\_\_

Is disposal through this method \_\_\_\_\_

continuous or

\_\_\_\_\_ intermittent?

**FACILITY NAME AND PERMIT NUMBER:**

Glenmore Water Resource Recovery Facility VA0086584

Form Approved 1/14/99  
OMB Number 2040-0086**WASTEWATER DISCHARGES:**

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

**A.9. Description of Outfall.**

- a. Outfall number 001
- b. Location
- |                               |                    |
|-------------------------------|--------------------|
| (City or town, if applicable) | (Zip Code)         |
| <u>Albermarle</u>             | <u>Virginia</u>    |
| (County)                      | (State)            |
| <u>N37 58' 44"</u>            | <u>W78 22' 58"</u> |
| (Latitude)                    | (Longitude)        |
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) N/A ft.
- e. Average daily flow rate 0.102 mgd
- f. Does this outfall have either an intermittent or a periodic discharge?
- Yes   ✓   No (go to A.9.g.)
- If yes, provide the following information:
- Number of times per year discharge occurs:
- Average duration of each discharge:
- Average flow per discharge:                                  mgd
- Months in which discharge occurs:
- g. Is outfall equipped with a diffuser?
- Yes   ✓   No

**A.10. Description of Receiving Waters.**

- a. Name of receiving water Rivanna River
- b. Name of watershed (if known) James (Middle)
- United States Soil Conservation Service 14-digit watershed code (if known):
- c. Name of State Management/River Basin (if known):
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known):
- d. Critical low flow of receiving stream (if applicable):
- acute                                  cfs chronic                                  cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): 25 mg/l of CaCO<sub>3</sub>

## FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99  
OMB Number 2040-0086

Glenmore Water Resource Recovery Facility VA0086584

## A.11. Description of Treatment.

- a. What levels of treatment are provided? Check all that apply.

☐ Primary☒ Secondary☐ Advanced☐ Other. Describe: \_\_\_\_\_

- b. Indicate the following removal rates (as applicable):

Design BOD<sub>5</sub> removal or Design CBOD<sub>5</sub> removal 85 %

Design SS removal 85 %

Design P removal %

Design N removal %

Other %

- c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Ultra-violet disinfection

If disinfection is by chlorination, is dechlorination used for this outfall?

☐ Yes ☐ No

- d. Does the treatment plant have post aeration?

☒ Yes ☐ No

**A.12. Effluent Testing Information.** All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.5	s.u.			
pH (Maximum)	7.0	s.u.			
Flow Rate	0.177	MGD	0.113	MGD	31
Temperature (Winter)	17.6	C	16.0	C	31
Temperature (Summer)	22.2	C	20.9	C	31

\* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		

## CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5						
	CBOD-5	4	mg/l	1.9	mg/l	50	SM 5210 B-20 1.0 mg/l
FECAL COLIFORM		130	cfu/100ml	9	cfu/100ml	50	EPA 1903 1 CFU/100ml
TOTAL SUSPENDED SOLIDS (TSS)		10	mg/l	3	mg/l	50	SM 2450 D-19 1.0 mg/l

## END OF PART A.

**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

**FACILITY NAME AND PERMIT NUMBER:**

Glenmore Water Resource Recovery Facility VA0086584

Form Approved 1/14/99  
OMB Number 2040-0086**BASIC APPLICATION INFORMATION****PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).**All applicants with a design flow rate  $\geq 0.1$  mgd must answer questions B.1 through B.6. All others go to Part C (Certification).**B.1. Inflow and Infiltration.** Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

approx. 10,000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

The Albermarle County Service Authority has a plan to provide necessary maintenance on sewer collection syste**B.2. Topographic Map.** Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

- The area surrounding the treatment plant, including all unit processes.
- The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- Each well where wastewater from the treatment plant is injected underground.
- Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

**B.3. Process Flow Diagram or Schematic.** Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.**B.4. Operation/Maintenance Performed by Contractor(s).**Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ☐ Yes ☒ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Responsibilities of Contractor: \_\_\_\_\_

**B.5. Scheduled Improvements and Schedules of Implementation.** Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

- List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

- Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

☐ Yes ☐ No

**FACILITY NAME AND PERMIT NUMBER:**

Glenmore Water Resource Recovery Facility VA0086584

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- c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).
- \_\_\_\_\_

- d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule	Actual Completion
	MM / DD / YYYY	MM / DD / YYYY
- Begin construction	___/___/___	___/___/___
- End construction	___/___/___	___/___/___
- Begin discharge	___/___/___	___/___/___
- Attain operational level	___/___/___	___/___/___

- e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? \_\_\_\_Yes \_\_\_\_No

Describe briefly: \_\_\_\_\_

**B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).**

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)	1.44	mg/l	0.42	mg/l	35	SM 4500 D-1997	0.05 mg/l
CHLORINE (TOTAL RESIDUAL, TRC)	NA		NA				
DISSOLVED OXYGEN	10.4	mg/l	8.4	mg/l	365	SM 4500 G-2001	NA
TOTAL KJELDAHL NITROGEN (TKN)	1.1	mg/l	0.2	mg/l	47	SM4500-C-1997	0.08 mg/l
NITRATE PLUS NITRITE NITROGEN	2.54	mg/l	1.63	mg/l	3	Lachat 10-107-04	0.20 mg/l
OIL and GREASE	<5	mg/l	<5	mg/l	3	EPA 1664B	5.0 mg/l
PHOSPHORUS (Total)	2.84	mg/l	2.32	mg/l	3	Lachat 10-115-01	0.20 mg/l
TOTAL DISSOLVED SOLIDS (TDS)	266	mg/l	240.3	mg/l	3	SM 2540C, 2011	1.0 mg/l
OTHER							

**END OF PART B.**

**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

**FACILITY NAME AND PERMIT NUMBER:**

Glenmore Water Resource Recovery Facility VA0086584

Form Approved 1/14/99  
OMB Number 2040-0086**BASIC APPLICATION INFORMATION****PART C. CERTIFICATION**

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

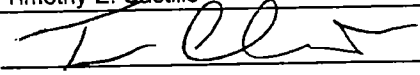
**Indicate which parts of Form 2A you have completed and are submitting:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Basic Application Information packet | Supplemental Application Information packet:   |
|  | <input type="checkbox"/> Part D (Expanded Effluent Testing Data)                               |
|  | <input type="checkbox"/> Part E (Toxicity Testing: Biomonitoring Data)                         |
|  | <input checked="" type="checkbox"/> Part F (Industrial User Discharges and RCRA/CERCLA Wastes) |
|  | <input type="checkbox"/> Part G (Combined Sewer Systems)                                       |

**ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Timothy E. Castillo

Signature 

Telephone number (434) 977-2970

Date signed 01-27-16

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

**SEND COMPLETED FORMS TO:**

## FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99  
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Glenmore Water Resource Recovery Facility VA0086584

## SUPPLEMENTAL APPLICATION INFORMATION

## PART D. EXPANDED EFFLUENT TESTING DATA

N/A

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

**Effluent Testing: 1.0 mgd and Pretreatment Treatment Works.** If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: \_\_\_\_\_ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
<b>METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.</b>											
ANTIMONY											
ARSENIC											
BERYLLIUM											
CADMIUM											
CHROMIUM											
COPPER											
LEAD											
MERCURY											
NICKEL											
SELENIUM											
SILVER											
THALLIUM											
ZINC											
CYANIDE											
TOTAL PHENOLIC COMPOUNDS											
HARDNESS (AS CaCO <sub>3</sub> )											
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

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Outfall number: \_\_\_\_\_ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
<b>VOLATILE ORGANIC COMPOUNDS.</b>											
ACROLEIN											
ACRYLONITRILE											
BENZENE											
BROMOFORM											
CARBON TETRACHLORIDE											
CLOROBENZENE											
CHLORODIBROMO-METHANE											
CHLOROETHANE											
2-CHLORO-ETHYL VINYL ETHER											
CHLOROFORM											
DICHLOROBROMO-METHANE											
1,1-DICHLOROETHANE											
1,2-DICHLOROETHANE											
TRANS-1,2-DICHLORO-ETHYLENE											
1,1-DICHLOROETHYLENE											
1,2-DICHLOROPROPANE											
1,3-DICHLORO-PROPYLENE											
ETHYLBENZENE											
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE											
1,1,2,2-TETRACHLORO-ETHANE											
TETRACHLORO-ETHYLENE											
TOLUENE											

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Outfall number: \_\_\_\_\_ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE											
1,1,2-TRICHLOROETHANE											
TRICHLOROETHYLENE											
VINYL CHLORIDE											

Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.

**ACID-EXTRACTABLE COMPOUNDS**

P-CHLORO-M-CRESOL											
2-CHLOROPHENOL											
2,4-DICHLOROPHENOL											
2,4-DIMETHYLPHENOL											
4,6-DINITRO-O-CRESOL											
2,4-DINITROPHENOL											
2-NITROPHENOL											
4-NITROPHENOL											
PENTACHLOROPHENOL											
PHENOL											
2,4,6-TRICHLOROPHENOL											

Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.

**BASE-NEUTRAL COMPOUNDS.**

ACENAPHTHENE											
ACENAPHTHYLENE											
ANTHRACENE											
BENZIDINE											
BENZO(A)ANTHRACENE											
BENZO(A)PYRENE											

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Outfall number: \_\_\_\_\_ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE											
BENZO(GH)PERYLENE											
BENZO(K)FLUORANTHENE											
BIS (2-CHLOROETHOXY) METHANE											
BIS (2-CHLOROETHYL)-ETHER											
BIS (2-CHLOROISO-PROPYL) ETHER											
BIS (2-ETHYLHEXYL) PHTHALATE											
4-BROMOPHENYL PHENYL ETHER											
BUTYL BENZYL PHTHALATE											
2-CHLORONAPHTHALENE											
4-CHLORPHENYL PHENYL ETHER											
CHRYSENE											
DI-N-BUTYL PHTHALATE											
DI-N-OCTYL PHTHALATE											
DIBENZO(A,H) ANTHRACENE											
1,2-DICHLOROBENZENE											
1,3-DICHLOROBENZENE											
1,4-DICHLOROBENZENE											
3,3-DICHLOROBENZIDINE											
DIETHYL PHTHALATE											
DIMETHYL PHTHALATE											
2,4-DINITROTOLUENE											
2,6-DINITROTOLUENE											
1,2-DIPHENYLHYDRAZINE											

**FACILITY NAME AND PERMIT NUMBER:**

Glenmore Water Resource Recovery Facility VA0086584

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Outfall number: \_\_\_\_\_ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE											
FLUORENE											
HEXACHLOROBENZENE											
HEXACHLOROBUTADIENE											
HEXACHLOROCYCLO-PENTADIENE											
HEXACHLOROETHANE											
INDENO(1,2,3-CD)PYRENE											
ISOPHORONE											
NAPHTHALENE											
NITROBENZENE											
N-NITROSODI-N-PROPYLAMINE											
N-NITROSODI- METHYLAMINE											
N-NITROSODI-PHENYLAMINE											
PHENANTHRENE											
PYRENE											
1,2,4-TRICHLOROBENZENE											

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

**END OF PART D.**  
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

**FACILITY NAME AND PERMIT NUMBER:**Form Approved 1/14/99  
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Glenmore Water Resource Recovery Facility VA0086584

**SUPPLEMENTAL APPLICATION INFORMATION****PART E. TOXICITY TESTING DATA**

N/A

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

**E.1. Required Tests.**

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

\_\_\_\_ chronic      \_\_\_\_ acute

**E.2. Individual Test Data.** Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: \_\_\_\_\_ Test number: \_\_\_\_\_ Test number: \_\_\_\_\_

**a. Test information.**

Test species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			

**b. Give toxicity test methods followed.**

Manual title			
Edition number and year of publication			
Page number(s)			

**c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.**

24-Hour composite			
Grab			

**d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)**

Before disinfection			
After disinfection			
After dechlorination			

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Test number: \_\_\_\_\_

Test number: \_\_\_\_\_

Test number: \_\_\_\_\_

e. Describe the point in the treatment process at which the sample was collected.

Sample was collected:

f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.

Chronic toxicity

Acute toxicity

g. Provide the type of test performed.

Static

Static-renewal

Flow-through

h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.

Laboratory water

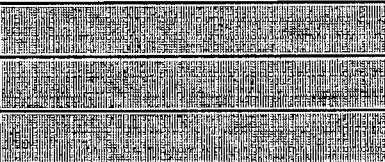
Receiving water

i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.

Fresh water

Salt water

j. Give the percentage effluent used for all concentrations in the test series.



k. Parameters measured during the test. (State whether parameter meets test method specifications)

pH

Salinity

Temperature

Ammonia

Dissolved oxygen

l. Test Results.

Acute:

Percent survival in 100%  
effluent

%

%

%

LC<sub>50</sub>

95% C.I.

%

%

%

Control percent survival

%

%

%

Other (describe)

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Chronic:

NOEC	%	%	%
IC <sub>25</sub>	%	%	%
Control percent survival	%	%	%
Other (describe)			

**m. Quality Control/Quality Assurance.**

Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

**E.3. Toxicity Reduction Evaluation.** Is the treatment works involved in a Toxicity Reduction Evaluation?

\_\_\_\_ Yes \_\_\_\_ No      If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**E.4. Summary of Submitted Biomonitoring Test Information.** If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: \_\_\_\_\_ (MM/DD/YYYY)

Summary of results: (see instructions)

\_\_\_\_\_  
\_\_\_\_\_**END OF PART E.****REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.**

**FACILITY NAME AND PERMIT NUMBER:**

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Form Approved 1/14/99  
OMB Number 2040-0086**SUPPLEMENTAL APPLICATION INFORMATION****PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES**

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

**GENERAL INFORMATION:**

**F.1. Pretreatment Program.** Does the treatment works have, or is it subject to, an approved pretreatment program?

\_\_\_ Yes ☒ No

**F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs).** Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 0

b. Number of CIUs. 0

**SIGNIFICANT INDUSTRIAL USER INFORMATION:**

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

**F.3. Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

**F.4. Industrial Processes.** Describe all of the industrial processes that affect or contribute to the SIU's discharge.

\_\_\_\_\_

**F.5. Principal Product(s) and Raw Material(s).** Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): \_\_\_\_\_

Raw material(s): \_\_\_\_\_

**F.6. Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

\_\_\_\_\_ gpd (\_\_\_ continuous or \_\_\_ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

\_\_\_\_\_ gpd (\_\_\_ continuous or \_\_\_ intermittent)

**F.7. Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits \_\_\_ Yes \_\_\_ No

b. Categorical pretreatment standards \_\_\_ Yes \_\_\_ No

If subject to categorical pretreatment standards, which category and subcategory?

\_\_\_\_\_

**FACILITY NAME AND PERMIT NUMBER:**

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**RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:****F.9. RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? ☐ Yes ☐ No (go to F.12.)**F.10. Waste Transport.** Method by which RCRA waste is received (check all that apply):☐ Truck ☐ Rail ☐ Dedicated Pipe**F.11. Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).EPA Hazardous Waste NumberAmountUnits

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**CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:****F.12. Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?☐ Yes (complete F.13 through F.15.) ☐ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

**F.13. Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

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**F.14. Pollutants.** List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

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**F.15. Waste Treatment.**

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

☐ Yes ☐ No

If yes, describe the treatment (provide information about the removal efficiency):

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b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous ☐ Intermittent If intermittent, describe discharge schedule.

---

**END OF PART F.**  
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

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## SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS *N/A*

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

- All CSO discharge points.
- Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).
- Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1. or on a separate drawing, of the combined sewer collection system that includes the following information:

- Locations of major sewer trunk lines, both combined and separate sanitary.
- Locations of points where separate sanitary sewers feed into the combined sewer system.
- Locations of in-line and off-line storage structures.
- Locations of flow-regulating devices.
- Locations of pump stations.

## CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

## G.3. Description of Outfall.

- Outfall number \_\_\_\_\_
- Location \_\_\_\_\_  
(City or town, if applicable) (Zip Code)  
\_\_\_\_\_  
(County) (State)  
\_\_\_\_\_  
(Latitude) (Longitude)
- Distance from shore (if applicable) \_\_\_\_\_ ft.
- Depth below surface (if applicable) \_\_\_\_\_ ft.
- Which of the following were monitored during the last year for this CSO?  
\_\_\_\_ Rainfall      \_\_\_\_ CSO pollutant concentrations      \_\_\_\_ CSO frequency  
\_\_\_\_ CSO flow volume      \_\_\_\_ Receiving water quality
- How many storm events were monitored during the last year? \_\_\_\_\_

## G.4. CSO Events.

- Give the number of CSO events in the last year.  
\_\_\_\_\_ events (\_\_\_\_ actual or \_\_\_\_ approx.)
- Give the average duration per CSO event.  
\_\_\_\_\_ hours (\_\_\_\_ actual or \_\_\_\_ approx.)

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- c. Give the average volume per CSO event.

\_\_\_\_\_ million gallons (\_\_\_\_\_ actual or \_\_\_\_\_ approx.)

- d. Give the minimum rainfall that caused a CSO event in the last year.

\_\_\_\_\_ inches of rainfall

**G.5. Description of Receiving Waters.**

- a. Name of receiving water: \_\_\_\_\_

- b. Name of watershed/river/stream system: \_\_\_\_\_

United States Soil Conservation Service 14-digit watershed code (if known): \_\_\_\_\_

- c. Name of State Management/River Basin: \_\_\_\_\_

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): \_\_\_\_\_

**G.6. CSO Operations.**

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

\_\_\_\_\_  
\_\_\_\_\_**END OF PART G.****REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.**

**VIRGINIA DEQ NO EXPOSURE CERTIFICATION  
FOR EXCLUSION FROM VPDES INDUSTRIAL ACTIVITY STORMWATER PERMITTING**

Submission of this **No Exposure Certification** constitutes notice that the entity identified below does not require permit authorization for its stormwater discharges associated with industrial activity under the VPDES Permit Program due to the existence of a condition of **No Exposure**.

A condition of **No Exposure** exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. A storm resistant shelter is not required for the following industrial materials and activities:

- drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak. "Sealed" means banded or otherwise secured and without operational taps or valves;
- adequately maintained vehicles used in material handling; and
- final products, other than products that would be mobilized in stormwater discharges (e.g., rock salt).

A No Exposure Certification must be provided for each facility qualifying for the No Exposure exclusion. In addition, the exclusion from VPDES permitting is available on a facility-wide basis only, not for individual outfalls. If any industrial activities or materials are or will be exposed to precipitation, the facility is not eligible for the No Exposure exclusion.

By signing and submitting this No Exposure Certification form, the entity below is certifying that a condition of No Exposure exists at its facility or site, and is obligated to comply with the terms and conditions at 9VAC25-31-120 E (the VPDES Permit Regulation).

Please Type or Print All Information. ALL INFORMATION ON THIS FORM MUST BE PROVIDED.

**1. Facility Operator Information**

Name: Rivanna Water and Sewer Authority

Mailing Address: 695 Moores Creek Lane

City: Charlottesville State: VA Zip: 22902 Phone: 434-977-2970

**2. Facility/Site Location Information**

Facility Name: Glenmore Water Resource Recovery Facility

Address: 3395 Carroll Creek road

City: Charlottesville State: VA Zip: 22902

County Name: Albermarle

Latitude: N37-58-44 Longitude: W78-22-58

**3. Was the facility or site previously covered under a VPDES stormwater permit? Yes ☐ No ☒**

If "Yes", enter the VPDES permit number: \_\_\_\_\_

**4. SIC/Activity Codes: Primary: 4952 Secondary (if applicable): \_\_\_\_\_**

**5. Total size of facility/site associated with industrial activity: 2.0 acres \_\_\_\_\_ acres**

**6. Have you paved or roofed over a formerly exposed pervious area in order to qualify for the No Exposure exclusion? Yes ☐ No ☒**

If "Yes", please indicate approximately how much area was paved or roofed. Completing this question does not disqualify you for the No Exposure exclusion. However, DEQ may use this information in considering whether stormwater discharges from your site are likely to have an adverse impact on water quality, in which case you could be required to obtain permit coverage.

Less than one acre ☐ One to five acres ☐ More than five acres ☐

## 7. Exposure Checklist

Are any of the following materials or activities exposed to precipitation, now or in the foreseeable future? (Please check either "Yes" or "No" in the appropriate box.) If you answer "Yes" to any of these questions (1) through (11), you are **NOT** eligible for the No Exposure exclusion.

	Yes	No
(1) Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to stormwater	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2) Materials or residuals on the ground or in stormwater inlets from spill/leaks	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3) Materials or products from past industrial activity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(4) Material handling equipment (except adequately maintained vehicles)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5) Materials or products during loading/unloading or transporting activities	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(6) Materials or products stored outdoors (except final products intended for outside use [e.g., new cars] where exposure to stormwater does not result in the discharge of pollutants)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(7) Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(8) Materials or products handled/stored on roads or railways owned or maintained by the discharger	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(9) Waste material (except waste in covered, non-leaking containers [e.g., dumpsters])	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(10) Application or disposal of process wastewater (unless otherwise permitted)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(11) Particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater outflow	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## 8. Certification Statement

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of no exposure and obtaining an exclusion from VPDES stormwater permitting; and that there are no discharges of stormwater contaminated by exposure to industrial activities or materials from the industrial facility identified in this document (except as allowed under 9VAC25-31-120 E 2).

I understand that I am obligated to submit a No Exposure Certification form once every five years to the Department of Environmental Quality and, if requested, to the operator of the local MS4 into which this facility discharges (where applicable). I understand that I must allow the Department, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under a VPDES permit prior to any point source discharge of stormwater associated with industrial activity from the facility.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly involved in gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: Timothy E. Castillo

Print Title: Wastewater Manager

Email Address: tcastillo@rivanna.org

Signature: 

Date: 1/27/16

For Department of Environmental Quality Use Only

Accepted/Not Accepted by: \_\_\_\_\_ Date: \_\_\_\_\_

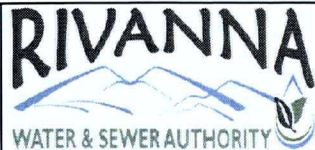


## Glenmore WWTP & Outfall



Feet  
0 70 140

Date: 1/26/2016



695 Moores Creek Lane  
Charlottesville, VA 22902  
p.434-977-2970  
[www.rivanna.org](http://www.rivanna.org)  
[www.rivannagis.org](http://www.rivannagis.org)

Data used in this map was provided by the RWSA, ACSA, City of Charlottesville, UVA FM Dept., and Albermarle Co. GDS. Duplication of data or redistribution of this map without permission from the RWSA Engineering Dept. is prohibited.



## Glenmore WWTP & Outfall

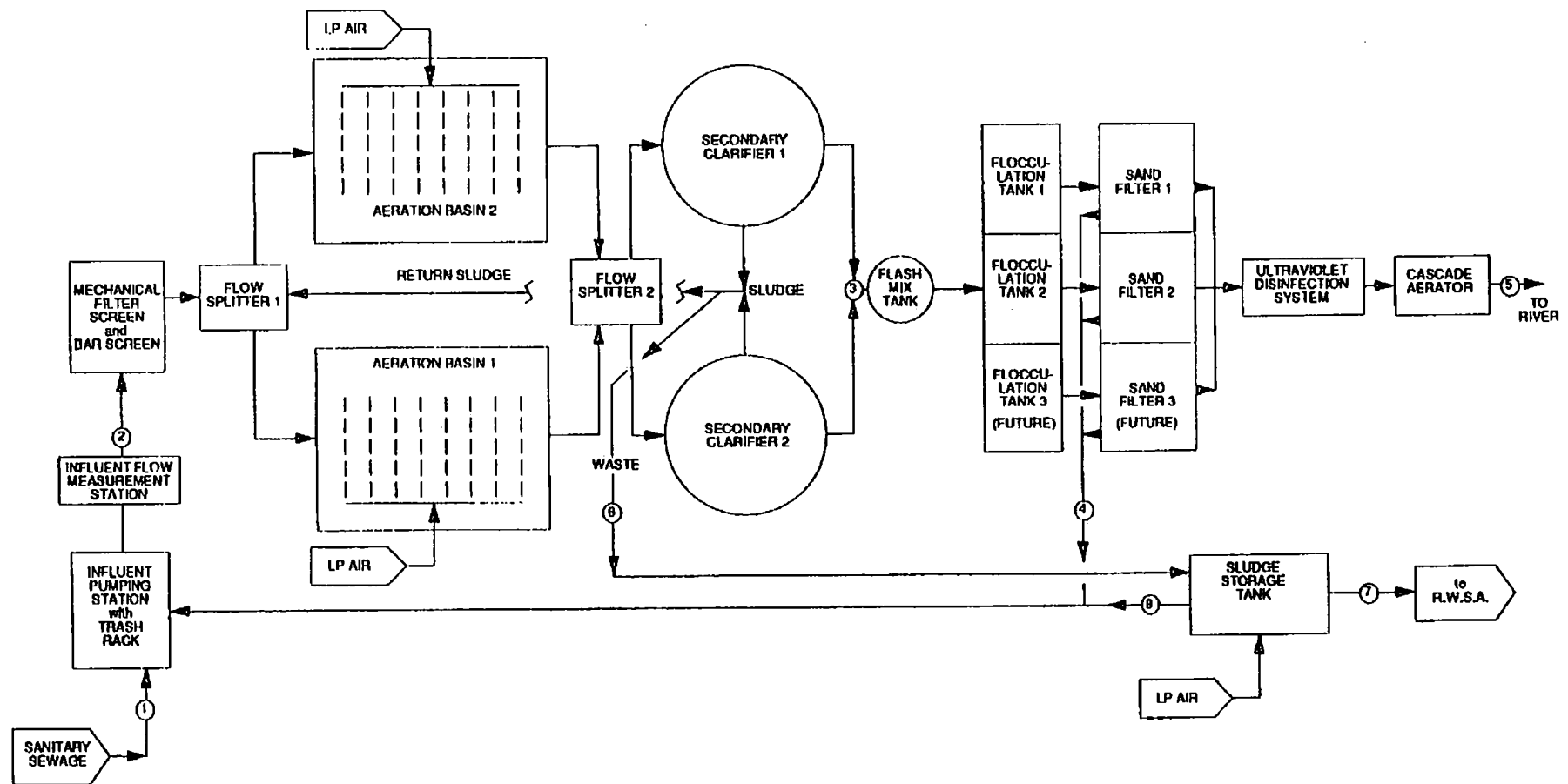


Date: 1/26/2016



695 Moores Creek Lane  
Charlottesville, VA 22902  
p.434-977-2970  
[www.rivanna.org](http://www.rivanna.org)  
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STREAM NUMBER	①	②	③	④	⑤	⑥	⑦	⑧
MATERIAL	raw sewage	influent	clarifier effluent	filtrate	final effluent	waste sludge	thickened sludge	supernatant
FLOW, gpd	381,000	404,987	400,207	20,000	380,207	4286	2286	2000
BOD <sub>5</sub> , mg/l	250	255	30	396	14	---	---	---
TSS, mg/l	250	255	30	396	14	8,000	15,000	250
TSS, lb/day	794	881	100	68	44	286	282	4
NH <sub>3</sub> , mg/l	35	35	---	0.9	0.9	---	---	---
DO, mg/l	---	---	---	---	7.0	---	---	---
Fecal Col.#/100ml	---	---	---	---	200	---	---	---

Glenmore  
Sewage Treatment Plant  
Process Flow diagram

Applied Technology and Engineering, P.C.  
Charlottesville, Virginia

TRM

Figure 3-1

6/1/93

# VPDES Sewage Sludge Permit Application for Permit Reissuance

## Instructions

**WHO MUST SUBMIT THE APPLICATION** - All facilities with a current VPDES Permit that authorizes the discharge of treated sewage wastewater that are applying for reissuance must complete and submit this application.  
 Part 1 is general information to be provided by all facilities.  
 Part 2 must be completed by all facilities that generate Class A or Class B biosolids that are land applied.  
 Part 3 must be completed by all facilities that land apply Class B biosolids.

## Part 1 - Sludge Disposal Management (To be completed by all facilities)

Facility Name: Glenmore WRRF

VPDES Permit No: VA0086584

### 1. Shipment Off Site for Treatment or Blending

Is sewage sludge from your facility sent to another facility that provides treatment or blending?

☒ Yes ☐ No

If you send sewage sludge to more than one facility, attach additional sheets as necessary.

Shipment off site is: ☒ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Receiving Facility Name

Moore's Creek Advanced Water Resource Recovery Facility

b. Receiving Facility VPDES Permit No. VA0025518

c. Include an acceptance letter from the Receiving Facility.

d. Receiving Facility's ultimate disposal method for sewage sludge Composting with McGill Environmental Systems

### 2. Disposal in a Municipal Solid Waste Landfill

Is sewage sludge from your facility placed in a municipal solid waste landfill?

☐ Yes ☒ No

If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

Landfilling is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Landfill Name

b. Landfill Permit No.

c. Include an acceptance letter from the landfill.

### 3. Incineration

Is sewage sludge from your facility fired in a sewage sludge incinerator?

☐ Yes ☒ No

Incineration is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?

☐ Yes ☒ No

If yes, provide the Air Registration No. \_\_\_\_\_

If no, complete items b - d for each incinerator that you do not own or operate.

b. Facility Name

c. Air Registration No.

d. Include an acceptance letter from the Incinerator.

### 4. Class A Biosolids

Do you produce Class A biosolids for land application or distribution and marketing? If yes, complete Part 2.

☐ Yes ☒ No

Are Class A biosolids from your facility land applied in bulk?

☐ Yes ☒ No

Do you sell or give away Class A biosolids in a bag or other container for application to the land? If yes, provide the VDACS certification number? \_\_\_\_\_

☐ Yes ☒ No

### 5. Class B Biosolids

Do you produce Class B biosolids? If yes, complete Part 2.

☐ Yes ☒ No

Are Class B biosolids from your facility land applied under the authorization of this VPDES Permit? If yes, complete Part 3.

☐ Yes ☒ No

### 6. Land Application Under a Separate Permit

Are biosolids from your facility land applied under the authorization of a permit other than your VPDES Permit?

☐ Yes ☒ No

Biosolids are land applied under the authorization of a ☐ VPA permit ☐ Another VPDES Permit ☐ Out of State

Complete items a - c for each VPA permit authorized to land apply biosolids from your facility.

a. Permittee Name

b. Permit No.

c. Include copy of any information you provide to the Receiving VPDES or VPA Permittee to comply with the "notice and necessary information" requirement of 9VAC25-31-530 F.

## VPDES Sewage Sludge Permit Application for Permit Reissuance

### Part 2 – Biosolids Characterization (To be completed by all facilities that generate biosolids that are land applied.)

1. Have there been changes to sludge treatment processes or storage facilities since the previous permit issuance/reissuance? ☐ Yes ☐ No
2. Do the biosolids generated under this permit that will be land applied meet one of the Class A pathogen requirements in 9VAC25-31-710 A 3 through A 8 or Class B pathogen requirements in 9VAC25-31-710 B 1 through B 4? ☐ Yes ☐ No  
Identify the pathogen reduction option utilized to demonstrate compliance with the pathogen reductions requirements and provide the data that demonstrate compliance with the applicable alternative. \_\_\_\_\_
3. Do the biosolids generated under this permit that will be land applied meet one of the vector attraction reduction requirements in 9VAC25-31-720 B 1 through B 10? ☐ Yes ☐ No  
Identify the vector attraction reduction option utilized to demonstrate compliance with the vector attraction reductions requirements and provide the data that demonstrate compliance with the applicable alternative. \_\_\_\_\_
4. Do the biosolids to be land applied meet the ceiling/pollutant concentrations in 9VAC25-31-540 B? ☐ Yes ☐ No
5. Has data from the most recent 3 samples for pH (S.U.), Percent Solids (%), Ammonium Nitrogen (mg/kg), Nitrate Nitrogen (mg/kg), Total Kjeldahl Nitrogen (mg/kg), Total Phosphorus (mg/kg), Total Potassium (mg/kg), Alkalinity as CaCO<sub>3</sub> (mg/kg), Arsenic (mg/kg), Cadmium (mg/kg), Copper (mg/kg), Lead (mg/kg), Mercury (mg/kg), Nickel (mg/kg), Selenium (mg/kg), Zinc (mg/kg) been submitted to DEQ? The samples shall be no more than 4½ years old and each sampling date shall be at least 1 month apart. ☐ Yes ☐ No  
If no, provide the data with this application. \_\_\_\_\_

### Part 3 – Land Application of Class B Biosolids (To be completed by all facilities that land apply Class B biosolids.)

1. Provide to DEQ and to each locality in which biosolids are to be land applied, written evidence of financial responsibility. Evidence of financial responsibility shall be provided in accordance with 9VAC25-31-100 P 9.
2. For each site, provide a properly completed landowner agreement for each landowner, using the most current Land Application Agreement - Biosolids Form (VPDES Sewage Sludge Permit Application Form – Attachment to Section C).
3. Are any new land application fields proposed at this reissuance? ☐ Yes ☐ No  
If yes, contact the DEQ Regional Office for additional submittal requirements.
4. For the currently permitted land application fields, are the previously submitted site booklets, maps and acreage accurate. ☐ Yes ☐ No  
If no, contact the DEQ Regional Office for additional submittal requirements.
5. Does the facility's Biosolids Management Plan on file with DEQ include the following minimum information? ☐ Yes ☐ No
  - a. An odor control plan that addresses the abatement of odors resulting from the storage and/or land application of biosolids.
  - b. A description of the transport vehicles to be used.
  - c. Procedures for biosolids offloading at the land application site including spill prevention, cleanup (including vehicle cleaning), field reclamation, and emergency notification and cleanup measures.
  - d. A description of the land application equipment including procedures for calibrating equipment to ensure uniform distribution and appropriate loading rates.
  - e. Procedures used to ensure that land application activities address notification requirements, signage requirements, slope restrictions, operation limitations during periods of inclement weather, soil pH requirements, buffer zone requirements, and site restrictions.
  - f. Any other information necessary to ensure compliance with the requirements of the Biosolids Program of the VPDES Permit Regulation (9VAC25-31-420 through 720).

### Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title Timothy E. Castillo, Wastewater Manager

Signature



Telephone number / Email (434) 977-2970 / tcastillo@rivanna.org

Date signed

11/27/16

(Based on a review of this information, it may be necessary to submit additional information to meet other legal or technical review requirements.)



695 MOORES CREEK LANE  
CHARLOTTESVILLE, VA 22902-9016  
TEL: 434.977.2970  
FAX: 434.293.8858  
WWW.RIVANNA.ORG

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January 27, 2016

Ms. Megan K. O'Gorek  
Water Permit Writer  
DEQ Valley Regional Office  
PO Box 3000  
Harrisonburg, VA 22801

RE: Glenmore WRRF VA0086584  
Sludge Disposal

Dear Ms. O'Gorek:

This correspondence is to serve as acceptance letter from the Moores Creek AWRRF VA0025518 operated by the Rivanna Water and Sewer Authority. The Moores Creek AWRRF will accept all sludge produced at the Glenmore WRRF VA0086584. The liquid sludge is hauled using Rivanna Solid Waste Authority tanker truck approximately 9.5 miles using the following route:

- From Glenmore WRRF follow Carrol Creek Road to Piper Way
- Turn left on Piper Way and follow to Glenmore Way
- Turn left on Glenmore Way and follow to Route 250
- Turn left on Route 250 West and follow to Interstate 64
- Take Interstate 64 west to exit 121 and turn right onto VA Route 20
- From VA 20 turn right onto Quarry Road
- Turn left onto Monticello Road
- Turn right onto Linden Street
- Turn left onto Nassau Street
- Turn right onto Franklin Street
- Turn right onto Moores Creek Lane

The solids received are then blended with Moores Creek solids and anaerobically digested, dewatered and then sent to McGill Environmental Systems in Waverly, VA for manufacture of compost material.

Please do not hesitate to contact me should you need any further information.

Sincerely,

Timothy E. Castillo  
Wastewater Manager

FACILITY NAME: Glenmore STP  
ADDRESS: 3395 Carroll Creek Road  
Shadwell, VA

Permit No. VA0086584  
Attachment A  
Page 1 of 1

DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY MONITORING

OUTFALL NO. 001

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS	SAMPLE TYPE <sup>(2)</sup>	SAMPLE FREQUENCY
PESTICIDES/PCBS						
333-41-5	Diazinon	(3)	(4)	< 0.10 µg/l	G or C	1/5 YR
ACID EXTRACTABLES <sup>(5)</sup>						
104-40-51	Nonylphenol	(3)	(4)	< 10.0 µg/l	G or C	1/5 YR

Timothy E. Castillo, Wastewater Manager  
Name of Principal Exec. Officer or Authorized Agent/Title

[Signature] 2/1/16  
Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

Footnotes to Water Quality Monitoring Attachment A

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.

- (2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.

C = Composite = An 8-hour composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

- (3) Any approved method presented in 40 CFR Part 136.

- (4) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.



1432 Air Rail Avenue, Virginia Beach, VA 23455-3002 • 757.460.4205 • Fax: 757.460.6586 • [www.hrsd.com](http://www.hrsd.com)

10/16/15 - Rivanna - GM-FNE

This analytical report contains 5 pages

Stuart Wilson  
Rivanna Water & Sewer Authority  
695 Moore's Creek Lane  
Charlottesville, VA 22902

[swilson@rivanna.org](mailto:swilson@rivanna.org)

**Date Sent: 11/02/15**

HRSD CEL, Central Environmental Laboratory is VELAP/NELAC accredited by  
DCLS, the Division of Consolidated Laboratory Services.

**VA Laboratory ID#: 460011**

Analytical test results meet all requirements of VELAP/NELAC unless otherwise noted under the analysis.

Test results relate only to the sample tested. Clients should be aware that a critical step in chemical or microbiological analysis is the collection of the sample.

This report may not be reproduced, except in full, without written approval from HRSD.

If you have any questions concerning this report, please do not hesitate to contact Robin Parnell, CEL  
Laboratory Manager at (757) 460-4203.

[rparnell@hrsdc.com](mailto:rparnell@hrsdc.com)

Kim Fordyce, CEL Administrative Assistant at (757) 460-4205.

[kfordyce@hrsdc.com](mailto:kfordyce@hrsdc.com)



CENTRAL ENVIRONMENTAL  
LABORATORY  
ANALYTICAL REPORT  
VA Laboratory ID 460011



Job ID: RV-16-OCT-15-969

Report Serial No.: 2015-2343

Sample ID: RV\_GM\_FNE-C-101615-1

Sample Date: 10/16/2015

Customer Sample ID: Rivanna Water and Sewer Authority - Glenmore WWTP - FNE

Sample ID: 456310

Sample Sub-Type: SAMP

Analyte	Method	CAS#	Unit	Result	Flag	LOQ	Analyst	Analysis Date	Analysis Time
Diazinon	EPA 622	00333-41-5	ug/l	<0.100		0.100	MBOGGIO	10/27/15	16:14
Ammonia-N, Distilled	Lachat 10-107-06-1-C	8013-59-0	mg/l	<0.20		0.20	DGONZALEZ	10/28/15	11:23
Nitrite/Nitrate - N	Lachat 10-107-04-1-A	10034	mg/l	1.10		0.20	GBROWN	10/20/15	10:20
Nonylphenol	ASTM D7065-06	84852-15-3	ug/l	<10.0		10.0	IGERASIMOV	10/24/15	15:04
Total Dissolved Solids	SM 2540C, 2011		mg/l	266		1.0	MALCORN	10/20/15	15:41
Total Phosphorus	Lachat 10-115-01-1-E	7723-14-0	mg/l	2.35		0.20	CCURRY	10/19/15	16:18

Notes

LOQ is lowest concentration at which quantitation is demonstrated.

\*Analyte is not included in the HRSD CEL VELAP scope of accreditation



CENTRAL ENVIRONMENTAL  
LABORATORY  
ANALYTICAL REPORT  
VA Laboratory ID 460011

**HRSD**

Job ID: RV-16-OCT-15-969

Report Serial No.: 2015-2343

Sample ID: RV\_GM\_FNE-G-101615-1

Sample Date: 10/16/2015

Customer Sample ID: Rivanna Water and Sewer Authority - Glenmore WWTP - FNE

Sample ID: 456311

Sample Sub-Type: SAMP

Analyte	Method	CAS#	Unit	Result	Flag	LOQ	Analyst	Analysis Date	Analysis Time
HEM (Total Oil and Grease)	EPA 1664B		mg/l	<5.0		5.0	JCOOK	10/19/15	08:23

Notes

LOQ is lowest concentration at which quantitation is demonstrated.

\*Analyte is not included in the HRSD CEL VELAP scope of accreditation

Authorized By: Robin Parnell - Lab Manager

Date Authorized: 11/2/2015



CENTRAL ENVIRONMENT LABORATORY  
1432 AIR RAIL AVENUE  
VIRGINIA BEACH, VA 23455  
TEL: 757-460-4214  
FAX: 757-460-6588

CHAIN OF CUSTODY

COC ID: 21845 COC NAME: RV\_10/18/15 18:15

Sample ID	Container No	Job Name	Date	Time	Sampler Id	Metrix	Type	Samp Temp °C	Preservation	Status	GLFIA	GC22	HARDNE SS	HEM	HG_CVA A	ICP_200 _7_A	ICPMS_2 00_8	NOX	PHNL_F A	SEMVO L_07065	SEMVO L825	TDS	TP	VOC824
RV_GM_FNE-C-101815-1	C275919	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	5.3	pH < 2	R										X				
	C275915	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	5.8	pH < 2	R										X				
	C275914	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	4.7	pH < 2	R										X				
	C275913	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	5.2	pH < 2	R										X				
	C275912	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	4.8		R		X												
	C275911	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	5.3		R		X												
	C275910	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	4.6		R		X												
	C275909	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	5.3		R		X												
	C275904	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	2.5		R												X		
	C275903	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	4.8	pH < 2	R										X				
	C275902	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	5.2		R		X												
	C275901	RV-18-OCT-15-989	10/16/2015	1030	BWECKWOR	L	C	3.3	pH < 2	R								X					X	
RV_GM_FNE-G-101815-1	C275908	RV-18-OCT-15-989	10/16/2015	1050	BWECKWOR	L	G	4.1		R				X										
	C275907	RV-18-OCT-15-989	10/16/2015	1050	BWECKWOR	L	G	5.3		R				X										
	C275906	RV-18-OCT-15-989	10/16/2015	1050	BWECKWOR	L	G	4.7		R				X										
	C275905	RV-18-OCT-15-989	10/16/2015	1050	BWECKWOR	L	G	4.2		R				X										
RV_MC_FB-C-101815-1	C275924	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C			R					X		X							
	C275923	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C			R							X							
RV_MC_FNE-C-101815-1	C275935	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	5.3	pH < 2	R										X				
	C275954	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	4.6	pH < 2	R										X				
	C275952	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	4.2		R		X												
	C275951	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	4.7		R												X		
	C275950	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	4.9		R												X		
	C275949	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	3.6		R												X		
	C275948	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	5.3		R												X		
	C275947	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	4.9		R												X		
	C275946	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	5.1		R												X		
	C275945	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	4.0		R												X		
	C275944	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	3.9		R												X		
	C275943	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	3.6		R												X		
	C275942	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	4.3		R												X		
	C275922	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	2.8		R													X	
	C275920	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	5.7		R		X												
	C275919	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C	4.2		R												X		
	C275918	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C			R					X		X							
	C275917	RV-18-OCT-15-970	10/16/2015	1400	BWECKWOR	L	C			R			X			X	X							
	C275939	RV-18-OCT-15-970	10/16/2015	1250	BWECKWOR	L	G	5.2		R				X										
RV_MC_FNE-G-101815-1	C275938	RV-18-OCT-15-970	10/16/2015	1250	BWECKWOR	L	G	5.8		R				X										
	C275937	RV-18-OCT-15-970	10/16/2015	1250	BWECKWOR	L	G	5.6		R				X										
	C275936	RV-18-OCT-15-970	10/16/2015	1230	BWECKWOR	L	G	5.9		R														X
	C275935	RV-18-OCT-15-970	10/16/2015	1230	BWECKWOR	L	G	5.8		R														X
	C275934	RV-18-OCT-15-970	10/16/2015	1230	BWECKWOR	L	G	5.4		R														X
	C275933	RV-18-OCT-15-970	10/16/2015	1230	BWECKWOR	L	G	5.6		R														X
	C275932	RV-18-OCT-15-970	10/16/2015	1230	BWECKWOR	L	G	4.7		R														X
	C275931	RV-18-OCT-15-970	10/16/2015	1230	BWECKWOR	L	G	5.8		R														X
	C275930	RV-18-OCT-15-970	10/16/2015	1230	BWECKWOR	L	G	5.6		R														X
	C275929	RV-18-OCT-15-970	10/16/2015	1230	BWECKWOR	L	G	5.7		R														X
	C275928	RV-18-OCT-15-970	10/16/2015	1250	BWECKWOR	L	G	5.4		R				X										
	C275927	RV-18-OCT-15-970	10/16/2015	1230	BWECKWOR	L	G	2.9	pH > 10	R	X													
	C275926	RV-18-OCT-15-970	10/16/2015	1245	BWECKWOR	L	G	4.3	pH < 2	R										X				
	C275925	RV-18-OCT-15-970	10/16/2015	1230	BWECKWOR	L	G	4.2		R														X

Comments:

Sample ID Container No Comment

ACTION BY DATE/TIME  
INITIATED: Bruce Weckworth - TSD 10/16/2015 18:03  
CUSTODY:  
RECEIVED: Edwin Strange - Specialist 10/19/2015 9:32



CENTRAL ENVIRONMENT LABORATORY  
1432 AIR RAIL AVENUE  
VIRGINIA BEACH, VA 23455  
TEL: 757-460-4214  
FAX: 757-460-6586

# CHAIN OF CUSTODY

COC ID: 21863 COC-NAME: RV\_10/19/15 09:49

Sample ID	Container No	Job Name	Date	Time	Sampler Id	Matrix	Type	Samp Temp oC	Preservation	Status	NH3
RV_GM_FNE-C-101615-1	C276025	RV-16-OCT-15-989	10/18/2015	1030	BWECKWORTH	L	C	8.0	pH < 2	R	x

Comments:

Sample ID Container No Comment

ACTION	BY	DATE/TIME
INITIATED:	Bruce Weckworth - TSD	10/19/2015 9:49:21 AM
CUSTODY:		
RECEIVED:	Edwin Strange - Specialist	10/19/2015 10:00:02 AM

# **FIELD RECORD (S)**

## Rivanna Grab Field Sheet

Glenmore

### Information checked before the start of sampling event:

1. Were representative conditions verified by plant operator? ☒ Y ☐ N BW (initial)
  - 1a. If "no" does client want to proceed with sampling? Y / N
  - 1b. If the answer to this question is NO, contact project manager immediately
2. Sample event date and time 10/16/15
3. Does RWI have any abnormal characteristics (i.e., odor, color)? Y / ☒ N
  - 3a. If YES contact project manager immediately
4. Sampling personnel B. Weckworth

### Information checked at the end of sampling

1. FNE grab end time / date 10/16/15 @ 1030
2. FB grab end time / date N/A

Oil & Grease: 10/16/15 @ 1050

Record any other circumstances which could affect the sample integrity:

average flow for plant = 90,000 gpd

Notes:



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## 01/12/16 - Rivanna - Glenmore-FNE

This analytical report contains 4 pages and Field Records.

Stuart Wilson  
Rivanna Water & Sewer Authority  
695 Moore's Creek Lane  
Charlottesville, VA 22902

[swilson@rivanna.org](mailto:swilson@rivanna.org)

**Date Sent: 01/26/16**

HRSD CEL, Central Environmental Laboratory is VELAP/NELAC accredited by  
DCLS, the Division of Consolidated Laboratory Services.

**VA Laboratory ID#: 460011**

Analytical test results meet all requirements of VELAP/NELAC unless otherwise noted under the analysis.

Test results relate only to the sample tested. Clients should be aware that a critical step in chemical or  
microbiological analysis is the collection of the sample.

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If you have any questions concerning this report, please do not hesitate to contact  
Robin Parnell, CEL Laboratory Manager at (757) 460-4203.  
[rparnell@hrsdc.com](mailto:rparnell@hrsdc.com)  
Kim Fordyce, CEL Administrative Assistant at (757) 460-4205.  
[kfordyce@hrsdc.com](mailto:kfordyce@hrsdc.com)



CENTRAL ENVIRONMENTAL  
LABORATORY  
ANALYTICAL REPORT  
VA Laboratory ID 460011



Job ID: RV-12-JAN-16-145

Report Serial No.: 2016-142

Sample ID: RV\_GM\_FNE-C-011216-1

Sample Date: 1/12/2016

Customer Sample ID: Rivanna Water and Sewer Authority - Glenmore WWTP - FNE

Sample ID: 495659

Sample Sub-Type: SAMP

Analyte	Method	CAS#	Unit	Result	Flag	LOQ	Analyst	Analysis Date	Analysis Time
Ammonia-N, Distilled	Lachat 10-107-06-1-C	8013-59-0	mg/l	<0.20		0.20	KSMITH	01/22/16	08:56
Nitrite/Nitrate - N	Lachat 10-107-04-1-A	10034	mg/l	1.25		0.20	DGONZALEZ	01/14/16	14:05
Total Dissolved Solids	SM 2540C, 2011		mg/l	210		0.0	MALCORN	01/14/16	13:35
TKN	Lachat 10-107-06-2-I	7783-54-2	mg/l	1.70		0.50	KSMITH	01/15/16	12:06
Total Phosphorus	Lachat 10-115-01-1-E	7723-14-0	mg/l	1.77		0.20	CCURRY	01/13/16	12:51

Notes

LOQ is lowest concentration at which quantitation is demonstrated.

\*Analyte is not included in the HRSD CEL VELAP scope of accreditation



CENTRAL ENVIRONMENTAL  
LABORATORY  
ANALYTICAL REPORT  
VA Laboratory ID 460011

**HRSD**

Job ID: RV-12-JAN-16-145

Report Serial No.: 2016-142

Sample ID: RV\_GM\_FNE-G-011216-1

Sample Date: 1/12/2016

Customer Sample ID: Rivanna Water and Sewer Authority - Glenmore WWTP - FNE

Sample ID: 495660

Sample Sub-Type: SAMP

Analyte	Method	CAS#	Unit	Result	Flag	LOQ	Analyst	Analysis Date	Analysis Time
HEM (Total Oil and Grease)	EPA 1664B		mg/l	<5.0		5.0	JCOOK	01/19/16	09:20

Notes

LOQ is lowest concentration at which quantitation is demonstrated.

\*Analyte is not included in the HRSD CEL VELAP scope of accreditation

Authorized By: Li Zhang - Lab Manager

Date Authorized: 1/26/2016



CENTRAL ENVIRONMENT LABORATORY  
1432 AIR RAIL AVENUE  
VIRGINIA BEACH, VA 23455  
TEL: 757-460-4214  
FAX: 757-460-6586

## CHAIN OF CUSTODY

COC ID: 23460 COC NAME: RV\_01/12/16 15:07

Sample ID	Container No	Job Name	Date	Time	Sampler Id	Matrix	Type	Samp Temp oC	Preservation	Status	HEM	NH3	NOX	TDS	TKN	TP
RV_GM_FNE-C-011216-1	C293045	RV-12-JAN-16-145	01/12/2016	1030	JJACKSON	L	C	3.3	pH < 2	R		X				
	C293044	RV-12-JAN-16-145	01/12/2016	1030	JJACKSON	L	C	3.6	.	R				X		
	C293043	RV-12-JAN-16-145	01/12/2016	1030	JJACKSON	L	C	3.0	pH < 2	R			X		X	X
RV_GM_FNE-G-011216-1	C293049	RV-12-JAN-16-145	01/12/2016	1045	JJACKSON	L	G	2.6	.	R	X					
	C293048	RV-12-JAN-16-145	01/12/2016	1045	JJACKSON	L	G	2.8	.	R	X					
	C293047	RV-12-JAN-16-145	01/12/2016	1045	JJACKSON	L	G	2.6	.	R	X					
	C293046	RV-12-JAN-16-145	01/12/2016	1045	JJACKSON	L	G	2.2	.	R	X					

Comments:

Sample ID	Container No	Comment
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ACTION	BY	DATE/TIME
INITIATED:	James Jackson - TSD WQ Technician	1/12/2016 3:04:17 PM
CUSTODY:		
RECEIVED:	Jeremy Spruill- Lab Tech	1/12/2016 3:14:57 PM

**FIELD  
RECORD (S)**

## Rivanna Grab Field Sheet

Glenmore

### Information checked before the start of sampling event:

1. Were representative conditions verified by plant operator? ☒ Y / N JA (initial)
  - 1a. If "no" does client want to proceed with sampling? Y / N
  - 1b. If the answer to this question is NO, contact project manager immediately
2. Sample event date and time 1/12/16 10:30
3. Does RWI have any abnormal characteristics (i.e., odor, color)? Y / ☒ N
  - 3a. If YES contact project manager immediately
4. Sampling personnel: J. Jackson

### Information checked at the end of sampling

1. FNE grab end time / date 1/12/16 @ 10:45
2. FB grab end time / date NA

Oil & Grease: 1/12/16 @ 10:45

Record any other circumstances which could affect the sample integrity:

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Notes:

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**11/20/15 - Rivanna - Glenmore -FNE**

This analytical report contains 4 pages

Stuart Wilson  
Rivanna Water & Sewer Authority  
695 Moore's Creek Lane  
Charlottesville, VA 22902

[swilson@rivanna.org](mailto:swilson@rivanna.org)

**Date Sent: 11/30/15**

HRSD CEL, Central Environmental Laboratory is VELAP/NELAC accredited by  
DCLS, the Division of Consolidated Laboratory Services.

**VA Laboratory ID#: 460011**

Analytical test results meet all requirements of VELAP/NELAC unless otherwise noted under the analysis.

Test results relate only to the sample tested. Clients should be aware that a critical step in chemical or microbiological analysis is the collection of the sample.

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If you have any questions concerning this report, please do not hesitate to contact Robin Parnell, CEL  
Laboratory Manager at (757) 460-4203.

[rparnell@hrsd.com](mailto:rparnell@hrsd.com)

Kim Fordyce, CEL Administrative Assistant at (757) 460-4205.

[kfordyce@hrsd.com](mailto:kfordyce@hrsd.com)



CENTRAL ENVIRONMENTAL  
LABORATORY  
ANALYTICAL REPORT  
VA Laboratory ID 460011



Job ID: RV-20-NOV-15-047

Report Serial No.: 2015-2534

Sample ID: RV\_GM\_FNE-C-112015-1

Sample Date: 11/20/2015

Customer Sample ID: Rivanna Water and Sewer Authority - Glenmore WWTP - FNE

Sample ID: 473189

Sample Sub-Type: SAMP

Analyte	Method	CAS#	Unit	Result	Flag	LOQ	Analyst	Analysis Date	Analysis Time
Ammonia-N, Distilled	Lachat 10-107-06-1-C	8013-59-0	mg/l	<0.20		0.20	DGONZALEZ	11/25/15	08:17
Nitrite/Nitrate - N	Lachat 10-107-04-1-A	10034	mg/l	2.54		0.20	DGONZALEZ	11/24/15	11:56
Total Dissolved Solids	SM 2540C, 2011		mg/l	245		0.0	MALCORN	11/23/15	11:38
TKN	Lachat 10-107-06-2-I	7783-54-2	mg/l	1.27		0.50	VFLAGG	11/25/15	11:15
Total Phosphorus	Lachat 10-115-01-1-E	7723-14-0	mg/l	2.84		0.20	CCURRY	11/23/15	12:53

**Notes**

LOQ is lowest concentration at which quantitation is demonstrated.

\*Analyte is not included in the HRSD CEL VELAP scope of accreditation



CENTRAL ENVIRONMENTAL  
LABORATORY  
ANALYTICAL REPORT  
VA Laboratory ID 460011



Job ID: RV-20-NOV-15-047

Report Serial No.: 2015-2534

Sample ID: RV\_GM\_FNE-G-112015-1

Sample Date: 11/20/2015

Customer Sample ID: Rivanna Water and Sewer Authority - Glenmore WWTP - FNE

Sample ID: 473190

Sample Sub-Type: SAMP

Analyte	Method	CAS#	Unit	Result	Flag	LOQ	Analyst	Analysis Date	Analysis Time
HEM (Total Oil and Grease)	EPA 1664B		mg/l	<5.0		5.0	ANROBERTS	11/24/15	08:10

Notes

LOQ is lowest concentration at which quantitation is demonstrated.

\*Analyte is not included in the HRSD CEL VELAP scope of accreditation

Authorized By: Li Zhang - Lab Manager

Date Authorized: 11/30/2015



CENTRAL ENVIRONMENT LABORATORY  
1432 AIR RAIL AVENUE  
VIRGINIA BEACH, VA 23455  
TEL: 757-460-4214  
FAX: 757-460-6586

# CHAIN OF CUSTODY

COC ID: 22567 COC NAME: \_11/20/15 17:38

Sample ID	Container No	Job Name	Date	Time	Sampler Id	Matrix	Type	Temp °C	Preservation	Status	CH_FIA	HARDNESS	HEM	HQ_CVA	ICP_200	ICPMS_2	NH3	NOX	PHN_FIA	SEM/VO	TDS	TKN	TP	VOC624
RV_GM_FNE-C-112015-1	C283404	RV-20-NOV-15-047	11/20/2015	1315	BWECKWORT	L	C	1.9	pH < 2	R														
	C283403	RV-20-NOV-15-047	11/20/2015	1315	BWECKWORT	L	C	2.2		R														
	C283402	RV-20-NOV-15-047	11/20/2015	1315	BWECKWORT	L	C	1.8	pH < 2	R														
RV_GM_FNE-G-112015-1	C283408	RV-20-NOV-15-047	11/20/2015	1315	BWECKWORT	L	G	4.1		R														
	C283407	RV-20-NOV-15-047	11/23/2015	1315	BWECKWORT	L	G	2.9		R														
	C283406	RV-20-NOV-15-047	11/20/2015	1315	BWECKWORT	L	G	3.9		R														
	C283405	RV-20-NOV-15-047	11/20/2015	1315	BWECKWORT	L	G	3.4		R														
RV_MC_FB-C-112015-1	C283397	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C			R														
	C283396	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C			R														
RV_MC_FNE-C-112015-1	C283427	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C	2.7		R														
	C283426	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C	3.4		R														
	C283425	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C	2.5		R														
	C283424	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C	2.2		R														
	C283423	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C	3.1		R														
	C283422	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C	2.1		R														
	C283421	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C	3.4		R														
	C283420	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C	4.0		R														
	C283395	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C	2.9		R														
	C283394	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C	3.3		R														
	C283393	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C			R														
	C283392	RV-20-NOV-15-046	11/20/2015	1150	BWECKWORT	L	C			R														
RV_MC_FNE-G-112015-1	C283419	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	4.1		R														
	C283418	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	3.7		R														
	C283417	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	4.1		R														
	C283416	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	2.6		R														
	C283415	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	2.2		R														
	C283414	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	4.3		R														
	C283413	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	2.5		R														
	C283412	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	3.7		R														
	C283411	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	2.6		R														
	C283410	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	3.6		R														
	C283409	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	2.4		R														
	C283401	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	3.8		R														
	C283400	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	2.2	pH > 10	R														
	C283399	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	2.8	pH < 2	R														
	C283398	RV-20-NOV-15-046	11/20/2015	1100	BWECKWORT	L	G	2.4		R														

Comments:

Sample ID Container No Comment

ACTION	BY	DATE/TIME
INITIATED:	Bruce Weckworth - TSD	11/20/2015 17:38
CUSTODY:		
RECEIVED:	Jeremy Spruill - Lab Tech	11/21/2015 7:05

# **FIELD RECORD (S)**

## Rivanna Grab Field Sheet

Glenmore

### Information checked before the start of sampling event:

1. Were representative conditions verified by plant operator ☒ Y BEV (Initial)
  - 1a. If "no" does client want to proceed with sampling? Y / N
  - 1b. If the answer to this question is NO, contact project manager immediately
2. Sample event date and time 11/20/15 @ 1315
3. Does RWI have any abnormal characteristics (i.e., odor, color)? Y ☒ N
  - 3a. If YES contact project manager immediately
4. Sampling personnel: B. Weckman, S. Macgrove

### Information checked at the end of sampling

1. FNE grab end time / date 11/20/15 @ 1315
2. FB grab end time / date N/A

Oil & Grease: 11/20/15 @ 1315

Record any other circumstances which could affect the sample integrity:

Notes: